

Derev 55095

Work Order ID 54160

December 1, 2009 3:04:04 PM



Page 1

Item ID: D117-762-041

Accept

Revision ID: A

Item Name: Replacement Skidtube

Start Date: 02/12/2009 Start Qty: 1.00

Required Date: 16/12/2009 Req'd Qty: 1.00

Reference:

Approvals:

Process Plan: *RL*

Date: *02/12-1*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3582

Rev A

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D117-762-041 CHG001

N/A

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Determine square end of tube and deburr
2-Drill #30 pilot holes using DT8678.
3- open holes to 5/16"

DD 9-12-2

120

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per program D3582 on CNC Bender and Dwg D3582. Use 5/16" locator pin on buggy "A".

DD 9-12-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID: 54160

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Item ID: D117-762-041

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Setup Start



Revision ID: A

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Stop



Start Date: 02/12/2009 Start Qty: 1.00



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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

130



Skidtubes

Skidtubes

Skidtubes

0.00

0.00

Memo

1-Cut Fwd end of the tube using DT8185
2-Cut Aft end using DT8185
3-Debur ends
4-Drill Aft Cap holes using DT8678 ***DO NOT OPEN AFT CAP HOLE***
5-Locate DT 8973 & Drill Ground wire hole on top of Tube.
6-Install 3/16 cleco in Ground wire hole ,then d

DP 9-12-2

DP 9-12-7

(P10)

140



Skidtubes

Skidtubes

Skidtubes

0.00

0.00

Memo

1-Weld fwd cap D2964 per dwg D3582 and OSI 004
A/R AL ROD Batch: M112507
2-Grind flush

9/12/17

BE 09/12/07

150



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

0.00

Memo

27 801267

(H)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09-12-04	130	Add missing work steps per Dan Paquette request. See attached. perm change				<i>[Signature]</i> 05-12-04	<i>[Signature]</i> 05-12-04

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng			
05-12-04	130	5 aft wearplate holes were drilled using the EC 130 jig (This 88 wheel was being worked on prior). Holes are 3 on each side.	<i>[Signature]</i> 05-12-04	As sink was necessary & fill the 3 & 6 holes with weld per cost of & grinded the inside & out side flush. A/R m112507	<i>[Signature]</i> 09/12/04 <i>[Signature]</i> 09-12-04	<i>[Signature]</i> 05-12-04	<i>[Signature]</i> 05-12-04

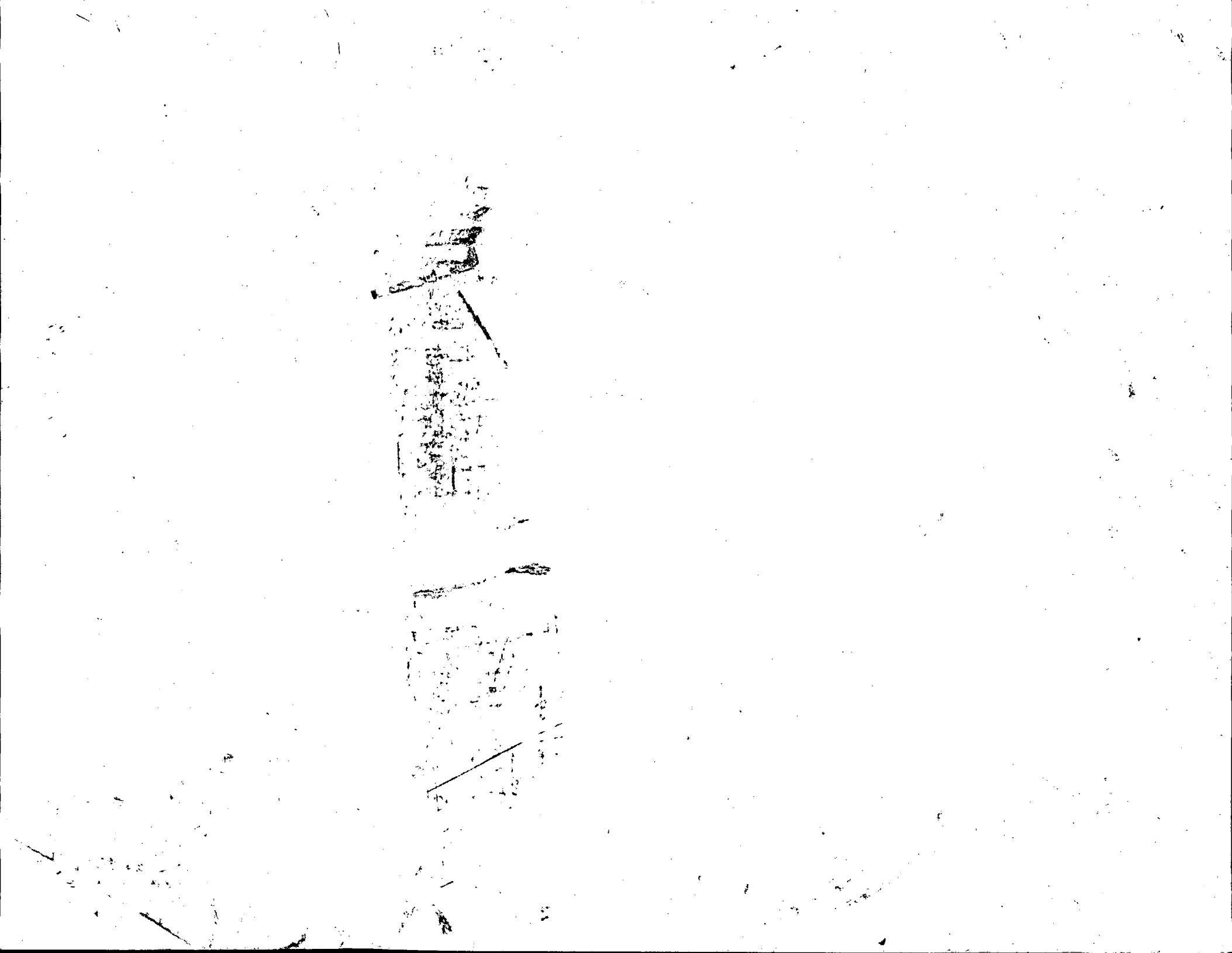
NOTE: Date & initial all entries

For seq 130, 1/29/12/03

- 1-Cut Fwd end of the tube using DT8185
- 2-Cut Aft end using DT8185
- 3-Deburr ends
- 4-Drill Aft Cap holes using DT8678 ***DO NOT OPEN AFT CAP HOLE***
- 5-Locate DT 8973 & Drill Ground wire hole on top of Tube.
- 6-Install 3/16 cleco in Ground wire hole ,then drill all X-Bolt holes using 3/16" drill.
- 7-Drill pilot holes for wearplates using DT8974
- 8-Open wearplate holes to $\varnothing 19/64$ " (0.297") as per Dwg D3582.
- 9- open ground wear holes to 0.391" as per section B-B
- 10-Open Aft Cap holes using .209" drill.
- 11-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size.

DP

9-12-7



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Customer:

Reference:

Run Start



Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Stop



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00

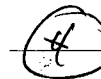


2) 8 02/12/09

QC

Memo

0.00



Quality Control

170

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

1

11 09/12/08

Hand Finishing

180

QC3- Inspect Part Finish

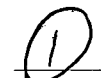
0.00



QC

Memo

0.00



BE 09/12/08

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

190

0.00



Skid tubes

Skid tubes

Memo

0.00

Skid tubes

1-Open X-Bolt holes to .750"(4Places) as per Dwg D3582, section B-B
2-Counter Sink X-BOLT holes as per Dwg D3582
3-Deburr and blow out chips from inside of tube.
4-Bond web as per Dwg D3582 & QSI 015
A/R 241 Sike Flex Batch: M112395

49/12/13

5) Weld per dwg X-bolt
6) grind flush

BE 09/12/09
AR M112860

200

0.00



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

Memo

0.00

809/12/10

Q.A. 09 - 12 - 09 ①

210

0.00



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

2) 809/12/10

② f

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Setup Start



Stop



Start Date: 02/12/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 16/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

START TIME 8:35
OVEN TEMPERATURE: 320°
FINISH TIME: 9:05

0.00

bk 09-12-11

0

230



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

M 09/12/14

(X1)

0

240



HandFinish

Hand Finishing

HandFinishing

0.00

Memo

Install Wearplate & Ground Wire inserts as per Dwg D3582.

0.00

=> M 09-12-14

(X1)

0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Item ID: D117-762-041

Accept



Setup Start



Revision ID: A

Item Name: Replacement Skidtube

Stop



Start Date: 02/12/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 16/12/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

250



HandFinish

HandFinishing

0.00

=> M 09/12/15

(XU)

Q

Memo

0.00

Hand Finishing

1-Inspect for Foreign objects
2-Install Aft cap as per Dwg D3582, Detail "C"
A/R 241 Sika Flex Batch: M112345
Exp Date: 10/08

3-Install Wearplates as per Dwg D3582,
Note: Install Bolt and wa

a wing wall per drawing M112263

260



QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Quality Control

PRO

10/12/29

270



Packaging

Packaging

0.00

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D117-762-041

Location:

PPP Rev: PM 54149

10/10/05

W/O: 54160		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
01-12-15	256	Permanent change	DA	10/01/06		u	

Part No: D117-762-041 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54160

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Item ID: D117-762-041

Accept



Setup Start



Revision ID: A

Stop



Item Name: Replacement Skidtube

Start Date: 02/12/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 16/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/01/06 *[Signature]*

ME 10-01-05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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Page 1

Work Order ID: 54160

Parent Item: D117-762-041RevA

Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2962-150RevA		Manufactured	No			110	Each	40.0000	1.0000			
3.540 Outer Tube, Extrud												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

40

27774

1

28672

39

D2964RevB

Manufactured

No

140

Each

32.0000

1.0000

Cap

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

32

14101

32

D2971RevA1

Manufactured

No

190

Each

39.0000

1.0000

Cross Bolt Spacer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

39

44445

39

D3584-1RevA

Manufactured

No

190

Each

0.0000

1.0000

Web

DP 9-12-2

1

BE 09/12/07

BE 09/12/09

1 11/9/12/8

B 54349

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Work Order ID: 54160

Parent Item: D117-762-041RevA

Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2973RevA		Manufactured	No			190	Each	213.0000	2.0000			

Cross Bolt Spacer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

213

14636

213

D3662-3RevA

Manufactured

No

190

Each

34.0000

1.0000



Crossbolt Spacer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

34

44456

34

D3662-1RevA

Manufactured

No

190

Each

24.0000

3.0000



Crossbolt Spacer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

24

39022

6

39585

18

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

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Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

ALS4-1032-130		Purchased	No			240	Each	2,957.000	36.0000			
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Insert

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

M111529

x36 H3 09-12-14

ST

2957

110511

2957

ALS4-428-165		Purchased	No			240	Each	42.0000	2.0000			
--------------	--	-----------	----	--	--	-----	------	---------	--------	--	--	--



Inserts

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

42

6989

42

x2 H3 09-12-14

D2965RevB		Manufactured	No			250	Each	3.0000	1.0000			
-----------	--	--------------	----	--	--	-----	------	--------	--------	--	--	--



Cap, 105 Skidtube

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

B352057

x1 H3 09-12-14

FP4

2

50924

2

Main Warehouse

ST

1

43288

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Comments:

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Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3508-3RevC		Manufactured	No			250	Each	9.0000	1.0000			

Wearplate

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP21

9

61386

9

D3508-9RevC

Manufactured

No

250

Each

3.0000

1.0000



Wearplate

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

3

46596

3

D3558-3RevB

Manufactured

No

250

Each

14.0000

1.0000



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

14

45661

2

51391

12

X1 24/ 09-12-10

X1 24/ 09-12-10

X1 24/ 09-12-10

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D3558-9RevB		Manufactured	No			250	Each	15.0000	1.0000			

Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

15

60928

15

D3558-11RevB

Manufactured

No

250

Each

13.0000

1.0000



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

13

40399

1

42254

12

D3558-13RevB

Manufactured

No

250

Each

10.0000

1.0000



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

10

40400

5

42255

5

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Shop Packet Print

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December 1, 2009 3:04:11 PM

Work Order ID: 54160

Parent Item: D117-762-041RevA

Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bi- Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3508-11RevC Manufactured

No

250

Each

7.0000

1.0000



Wearplate

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

7

40398

2

46880

5

X1 M 09-12-11

D3508-13RevC Manufactured

No

250

Each

6.0000

1.0000



Wearplate

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

6

42252

6

X1 M 09-12-14

D3492-051RevC Manufactured

No

250

Each

20.0000

2.0000



Plug Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

20

44633

20

X2 M 09-12-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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December 1, 2009 3:04:11 PM

Work Order ID: 54160



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3492-049RevC		Manufactured	No			250	Each	16.0000	2.0000			

Plug Assembly

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

16

40356

1

44632

15

250

Each

2.0000

6.0000

XZ M 09-12-14

D3492-053RevC

Manufactured

No



Plug Assembly

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

2

44063

2

X 540641

XZ M 09-12-11

H M 09-12-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 8

December 1, 2009 3:04:11 PM

Work Order ID: 54160

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Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

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Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN960JD10L		Purchased	No			250	Each	5,463.000	2.0000			
------------	--	-----------	----	--	--	-----	------	-----------	--------	--	--	--



Washer

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	5463	
101291	16	
104885	153	
105793	236	
109632	280	
110985	4778	

X2 41 09-12-14

AN3C4A		Purchased	No			250	Each	1,327.000	28.0000			
--------	--	-----------	----	--	--	-----	------	-----------	---------	--	--	--



BOLT

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	1327	
112314	13	
112720	12	
112724	3	
112829	44	
112991	39	
113121	216	
113226	1000	

M113359

X28 41 09-12-14

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Shop Packet Print

Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 9

December 1, 2009 3:04:11 PM

Work Order ID: 54160

Parent Item: D117-762-041RevA

Parent Item Name: Replacement Skidtube



Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C5A 		Purchased	No			250	Each	1,011.000	2.0000			
Bolt												

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	1011	
111424	8	
111707	69	
112314	1	
112641	333	
113121	300	
113149	300	

x2 ul 09-12-14

AN960JD416L

Purchased

No

250

Each

854.0000

2.0000



Washer

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	854	
107008	54	
108138	4	
108583	42	
110153	354	
112492	400	

x2 ul 09-12-14

December 1, 2009 3:04:11 PM

Shop Packet Print

Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 10

December 1, 2009 3:04:11 PM

Work Order ID: 54160



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube


Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C10L  washer		Purchased	No			250	Each	1,844.000	28.0000			

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

100

103585

100

Main Warehouse

ST

1744

12116

536

112612

342

112933

866

128 11 09-12-11

AN4-4A

Purchased

No

250

Each

121.0000

2.0000



Bolt

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

121

101291

3

106918

1

108138

60

111295

57

128 11 09-12-11

December 1, 2009 3:04:11 PM

Shop Packet Print

Page 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December 1, 2009 3:04:11 PM

Work Order ID: 54160

Parent Item: D117-762-041RevA

Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

NAS1611-012		Purchased	No			250	Each	62.0000	6.0000			
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O-RING

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

62

108673

62

NAS1611-015		Purchased	No			250	Each	22.0000	2.0000			
-------------	--	-----------	----	--	--	-----	------	---------	--------	--	--	--



O-RING

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

22

107178

22

NAS1611-016		Purchased	No			250	Each	69.0000	2.0000			
-------------	--	-----------	----	--	--	-----	------	---------	--------	--	--	--



O-RING

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

69

107178

19

112492

50

X6 JU 09-12-14
4

X2 JU 09-12-14

X2 JU 09-12-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

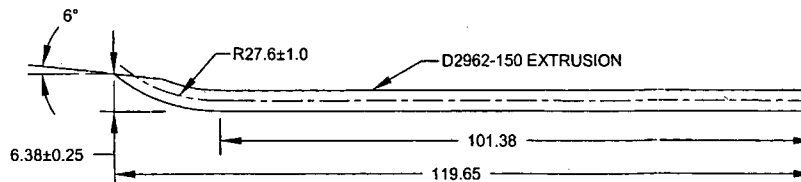
NOTE: Date & initial all entries

PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY

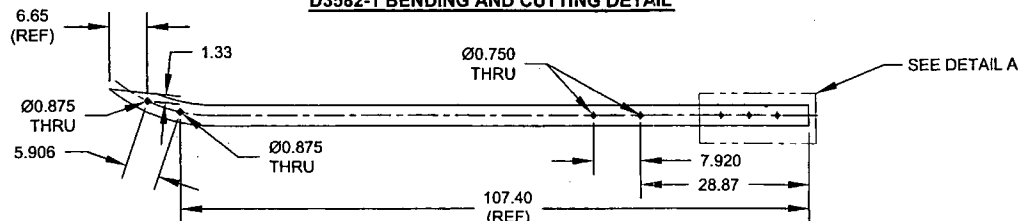
Qty	Part Number	Description
X	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALS7-428-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN860C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

GENERAL NOTES:

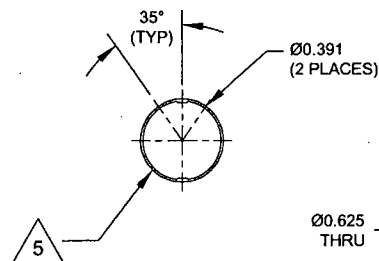
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- WELDING TO BE DONE PER DART QSI 004.
- INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- USE DART DRILL TEMPLATE DT8900 TO LOCATE AND DRILL Ø0.297 HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/291.
- DO NOT INSTALL AN3C4A BOLTS AND AN860C10L WASHERS IN INDICATED LOCATIONS.
- FINISH:
 - CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3584-1 WEB.
 - POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3.
 - ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4



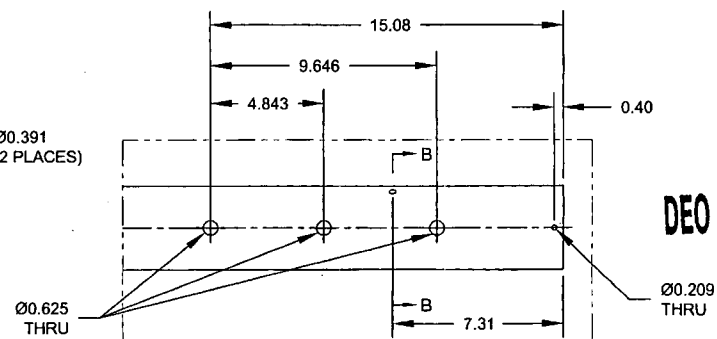
D3582-1 BENDING AND CUTTING DETAIL



D3582-1 DRILLING DETAIL



SECTION B-B
SCALE 1:5



DETAIL A
SCALE 1:5

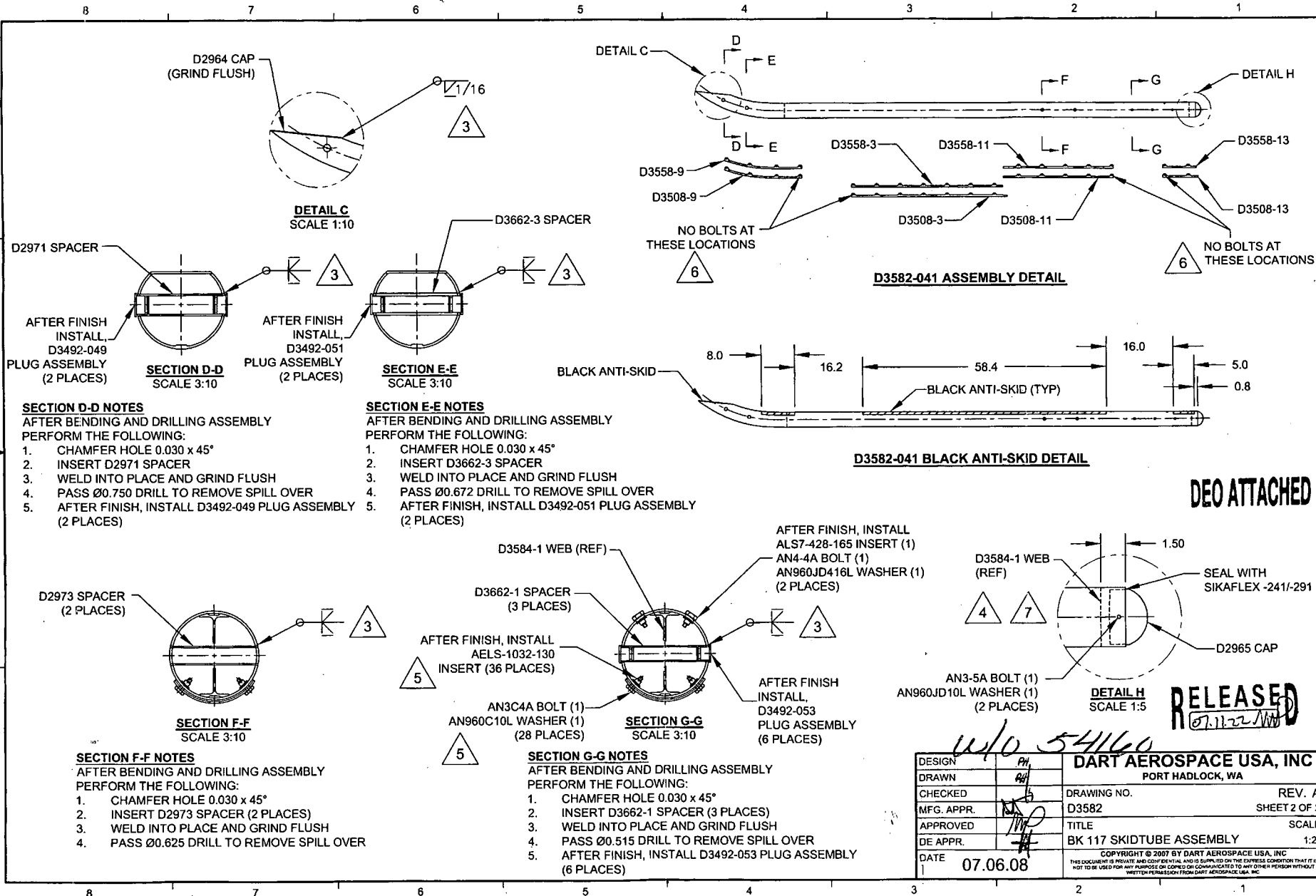
RELEASED
07-11-2014

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENTS
WITHOUT NOTICE
WORK ORDER

NO. 54460
171 09-12-1

REV.	DESCRIPTION	PH	DATE
A	NEW ISSUE	BY	07.06.08
DESIGN	DART AEROSPACE USA, INC		
DRAWN	PORT HADLOCK, WA		
CHECKED	DRAWING NO.	REV. A	
MFG. APPR.	D3582	SHEET 1 OF 2	
APPROVED	TITLE	SCALE	
DE APPR.	BK 117 SKIDTUBE ASSEMBLY	1:20	
DATE	07.06.08		

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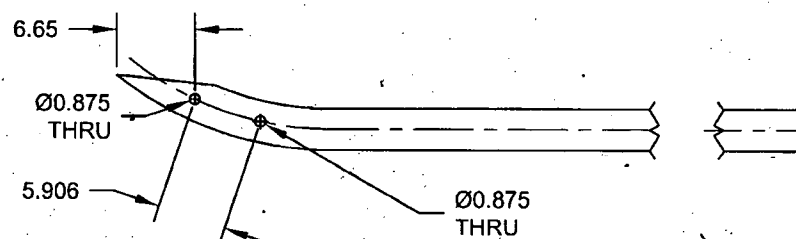


DRAWING NO. D3582	TITLE BK 117 SKIDTUBE ASSEMBLY	REV. A	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3582-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>PH</i>	CHECKED <i>B</i>	MFG. APPR. <i>E</i>	APPROVED <i>MD</i>		DE APPR. <i>MD</i>		
DATE 09.04.06	DATE 04.04.06	DATE 09.04.06	DATE 09/04/06		DATE 09.04.06		

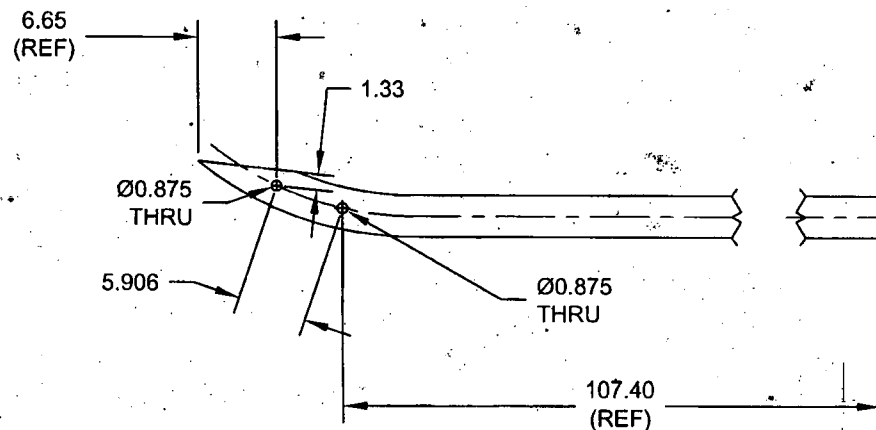
W/0 54160

FOR EASE OF MANUFACTURE AND TO ENSURE THE FIT OF BRISTOL WIRESTRIKE SKID GEAR DEFLECTOR:
UPDATE DIMENSIONING OF 2 FWD HOLES ON SHEET 1 AS SHOWN

IS:



WAS:



RELEASED
09/04/22 *MD*

NO. 220

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 54161
Part number: D17-762-041
Description: 17 - 3/4" tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier P.D. Date of Test Coupon 09/12/10
Welder Barclay Elliott Date of Test Coupon 09/12/10

The above named individual is qualified in accordance with AWS D17.1.2001 to weld